



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Ross, et al.

Examiner: Toan C. To

Serial No.: 10/051,968

Group Art Unit: 3616

Filed: January 16, 2002

For: **SPACER APPARATUS FOR SUSPENSION BEAM BUSHING ASSEMBLIES**

**AFFIDAVIT UNDER 37 C.F.R. § 1.132**

STATE OF OHIO                    )  
  )       ss:  
COUNTY OF STARK            )

**John Edward Ramsey**, being duly sworn, does hereby depose and say as follows,  
having personal knowledge of the facts sworn to herein:

1.       That he attended college at the University of Akron from 1970 to 1972 and 1983;  
and Kent State University from 1973 to 1974; and Broward Community College from 1976 to  
1979; and graduated summa cum laude from Walsh University with a bachelor's degree in  
business in 2002.

2.       That he completed course work in subject matter including math, machine design,  
DC and AC currents, chemistry, physics and graphics;

3.       That he was employed at Spectrum Designs, Novatronics and Wean United from  
about 1972 to about 1980;

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4. That during his employ at Spectrum Designs he designed tooling for Pratt & Whitney Aircraft Engines;

5. That he worked in Electromechanical Design at Novatronics;

6. That he worked as a machine shop helper at Wean United;

7. That he has been employed by Hendrickson Trailer Suspension Systems, a division of The Boler Company, in Canton, Ohio, or its predecessors in interest, since about 1980, first as a suspension designer;

8. That in about 1983 to 1984, he was promoted to a design engineer;

9. That in about 1987, he was promoted to a project engineer;

10. That in about 1991, he was promoted to a principal engineer;

11. That in about 1995, he was promoted to senior principal engineer;

12. That in about 2000, he was promoted to Manager of New Product Development and currently holds that position;

13. That “glove washer” and “cap style spacer” each is a term used to describe the invention claimed in Claims 1-4 and 11 of U.S. Patent Application Serial No. 10/051,968 filed January 16, 2002, and assigned to The Boler Company.

14. That under his direction, two graphs were prepared, attached as Exhibits A and B to this Affidavit, showing, respectively, for each of the years 2003 and 2004, the number of cap style spacers sold directly to customers for use on existing customer suspension assemblies, and the number of cap style spacers used by The Boler Company on its suspension assemblies sold to its customers; and that such sale and use figures include cap style spacers sold and used by all U.S. and international divisions/operations/companies of The Boler Company.

15. That the 2003 graph shows rapid acceptance after commercial introduction of the cap style spacers of The Boler Company, as well as sustained commercial acceptance/success.

16. That the 2004 graph shows increasing commercial acceptance/success of the cap style washers.

17. That he compiled the Glove Washers Regional Managers Reports attached hereto as Exhibit C.

18. That the individual glove washer questionnaires which form a part of the Glove Washer’s Regional Managers Reports are labeled “CUSTOMER A-H.” That in each questionnaire, the company name of the customer, its address, its contact, the date, its phone, the trailer builder, the suspension, the configuration, the trailer D.I.S. and the serial number, together with other selected information on certain questionnaires, have been redacted at his direction due

to the confidential and/or proprietary and/or sensitive business information nature of such redacted information.

19. That the glove washer questionnaire completed and submitted to Hendrickson by Customer A and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

20. That the glove washer questionnaire completed and submitted to Hendrickson by Customer B and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

21. That the glove washer questionnaire completed and submitted to Hendrickson by Customer C and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

22. That the glove washer questionnaire completed and submitted to Hendrickson by Customer D and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

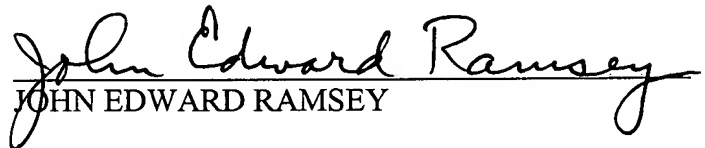
23. That the glove washer questionnaire completed and submitted to Hendrickson by Customer E and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

24. That the glove washer questionnaire completed and submitted to Hendrickson by Customer F and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

25. That the glove washer questionnaire completed and submitted to Hendrickson by Customer G and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

26. That the glove washer questionnaire completed and submitted to Hendrickson by Customer H and Hendrickson Regional Managers is evidence of long-felt need in the art, as well as quick acceptance and commercial success of the glove washers.

Further Affiant sayeth not.

  
JOHN EDWARD RAMSEY

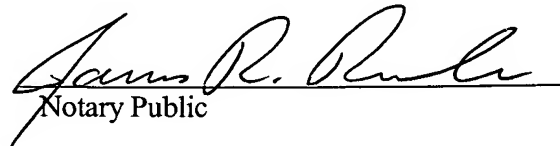
BEFORE ME, a Notary Public in and for said County and State, personally appeared **John Edward Ramsey**, who signed the foregoing AFFIDAVIT in my presence and who acknowledged the same to be his free act and deed.

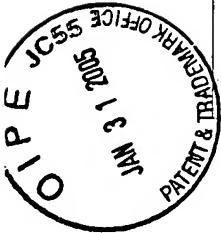
IN WITNESS WHEREOF, I have hereunto set my hand and official seal this 19th day of January, 2005.

(SEAL)

Attorney Docket No. HEND-AI (45007-144)

«CT2:429424\_1»

  
Notary Public



Cap Style Spacers Sold and Used 2003

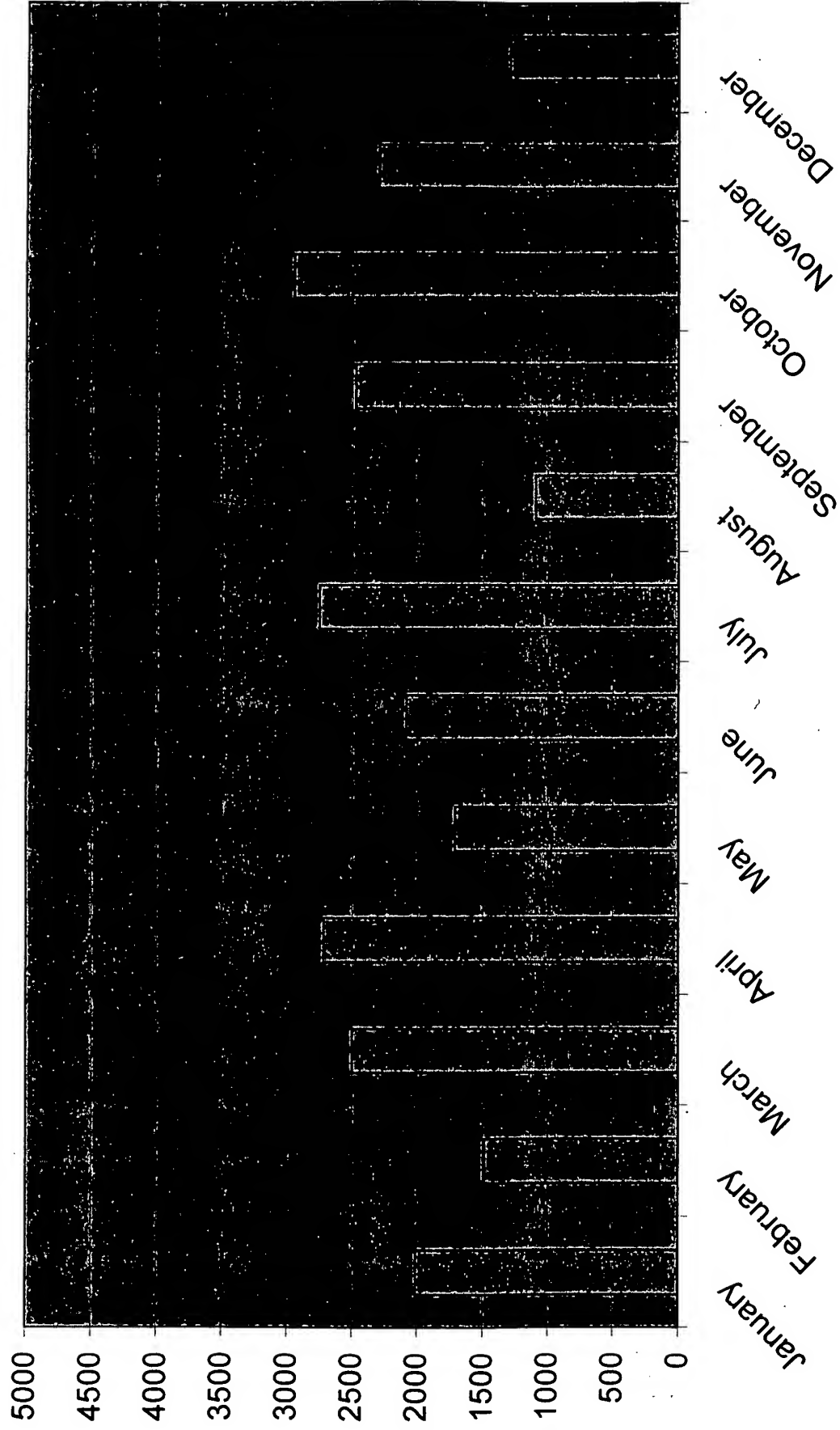


EXHIBIT A

# Cap Style Spacers Sold and Used 2004

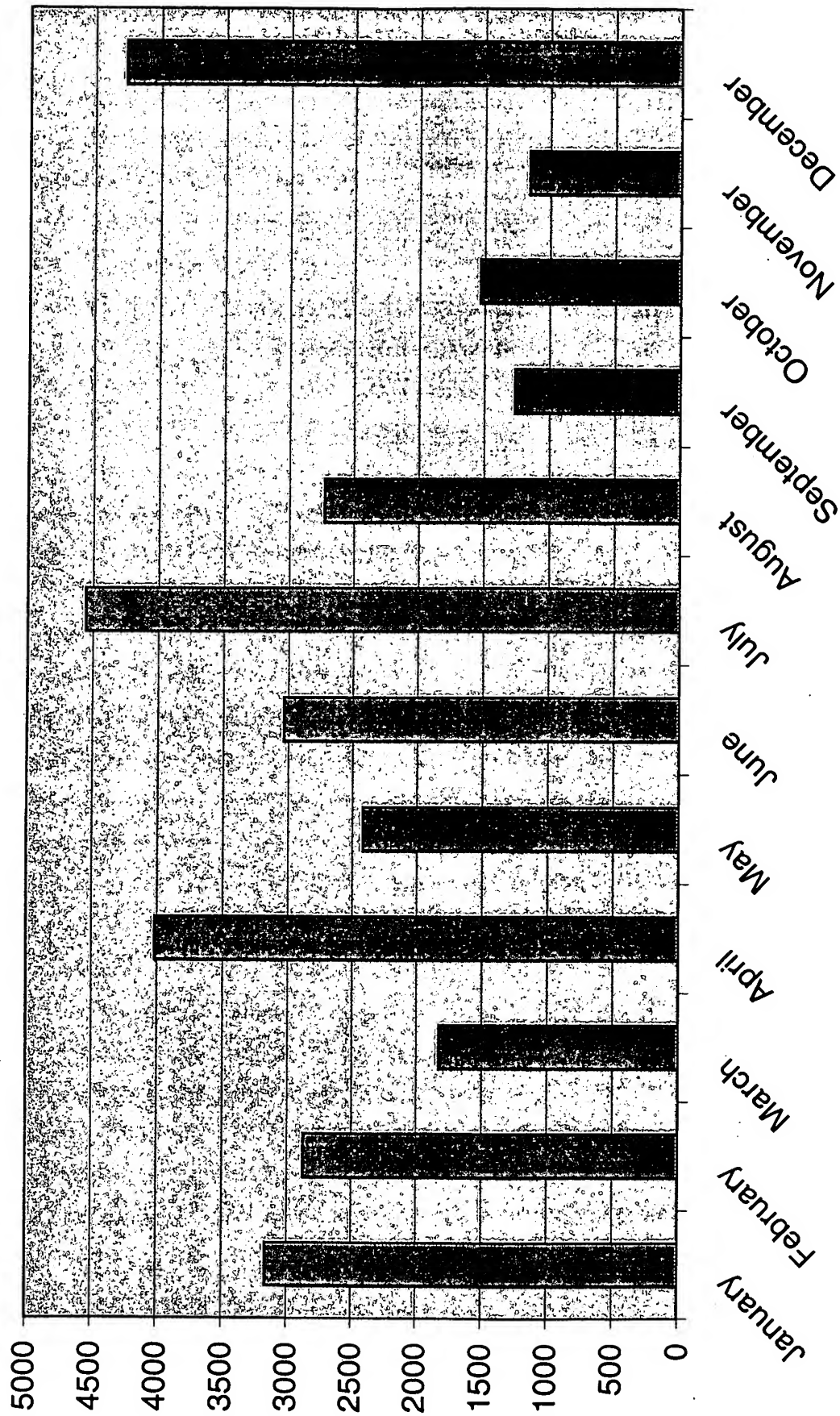


EXHIBIT B

# Glove Washers

REGIONAL MANAGERS REPORTS



February 2004

**EXHIBIT C**



# GLOVE WASHER QUESTIONNAIRE

Company Name			Date:	
Address:				
Contact:		Phone:		
Trailer Builder:		Suspension:		
Configuration:		Trailer D.I.S		
Serial No:				
Glove Washers	Date Fitted:	03/03	Date Removed:	In Service

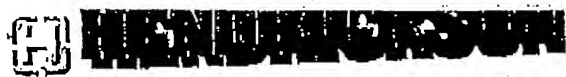
**History:** Original ( White ) Wear Collars Were Giving Around 4 To 6 Months Service. Fleet Believed This Unacceptable Due To Time Down And Labour Rates.  
 Fleet Purchased Grey Flat Collars For Installation To Have Them Fall Out After Only Weeks Of Service.  
 Failure Not Picked Up As Vehicles Working In Western Queensland.  
 Damage Was Done To Hangers And Trailing Arms.  
 Due To These Facts We Supplied A Triaxle Set Of The Trial Glove Type Wear Collars.  
 These Were Installed In March 2003. Unit Still Has These Original Collars Fitted.

**Operators Comments:**

Glove Type Collars Have So Far Lasted 3 Times The Amount Of Time The Flat Collars Were In Service.  
 Fleet Is Happy With These Results At This Time.

**Regional Managers Comments:**

Unfortunately Due To The "Success" Of The Glove Collars The Fleet Will Not Take Them Out For Analysis.  
 Comments From Trailer Fleets And Builders In Queensland Have Been That We Have A Great ' Highway ' Suspension But It Is No Good For Any Off-Road Work. Applications Such As Logging, Livestock And Mining Have Given Me Many Sleepless Nights.  
 My Conclusion Based Upon Current Available Data Is The The Collars Work Very Well. In Some Of These Applications If A Fleet Gets 12 Months Or More From A Wearable Part, They Are Happy. Going Standard With these Washers Is A Definate Product Improvement In My Book.



## GLOVE WASHER QUESTIONNAIRE

Company Name		Date:	
Address:			
Contact:		Phone:	
Trailer Builder:		Suspension:	
Configuration:		Trailer D.I.S	
Serial No:			
Glove Washers	Date Fitted:	November 2003	Date Removed:

**History:**  
have had a history of their Tippers with fitted, chopping out the wear pads and  
Bush Migration.

This tanker has experienced the same issues with  
Rays must turn sharply on concrete pads when loading and unloading

### Operators Comments:

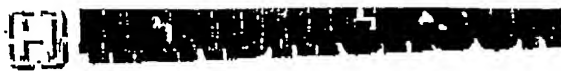
It is early days yet, but since fitting to have also fitted to units progressively  
There appears to be a significant improvement with very little evidence of wear in the glove washers

### Regional Managers Comments:

This has been an ongoing issue with the fleet and caused them to revert to on the last order.

Their confidence in our Suspension has been increased with this change.

**CUSTOMER B**



## GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	November 2003	Date Removed:

### History:

[REDACTED] Road Train Tankers run from Adelaide to Moomba Gas Fields over Bitumum roads with the last 200 kms unmade gravel road

Wear pads completely gone after only 6 months of operation, bushes also migrating.  
Got to be a major improvement

Drivers also have expressed significant improvement in handling and stability

### Operators Comments:

[REDACTED] is marketed as a Extreme Duty Package.

Glove washer is absolute must if we are to regain customer confidence and retain the business of  
A major national fleet.

### Regional Managers Comments:

This has been an ongoing issue with the fleet and caused them to revert to [REDACTED] on the last order.

Their confidence in our Suspension has been increased with this change.

CUSTOMER C

**GLOVE WASHER QUESTIONNAIRE**

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	November 2002	Date Removed:
			Still in Service

**History:**

The type of application of these Cane Trailers is severe

The Standard wear pads that were used prior on this trailer only had a six month service period.

**Operators Comments:**

The fleet owner has had trouble tracking the trailer, but has found it: [REDACTED]  
 The trailer has now covered 250,000 km since the glove washers were installed  
 and is more than happy with the results,  
 The fleet has purchased new tankers since and have been fitted with [REDACTED] Glove washers.  
 The general condition of the wear washers is "Very Good"

**Regional Managers Comments:**

From my point of view and comment from other fleets,  
 The Glove washer is a great Upgrade.



**HENDRICKSON**

## GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date	[REDACTED]
Address	[REDACTED]		
Contact	[REDACTED]	Phone	[REDACTED]
Trailer Builder	[REDACTED]	Suspension	[REDACTED]
Configuration	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	December 2002	Date Removed: October 2003

### History:

12 Glove style washers supplied by Hendrickson were fitted to a [REDACTED] Tipper on 20<sup>th</sup> December 2002  
The trailer has travelled approx. 180,000 km or more.

At the moment there is no sign of hanger wear or migration.

Since the first set of washers were fitted we now fit them as standard fitment when bushes are replaced.

### Operators Comments:

The old style washers are nothing but trouble – allowing beam migration on the bush  
The beam then rubs on the inside of the hanger cutting a circle and wearing the hanger, which in turn  
Needs replacing.  
The same washer wears the centre out and gives no support at all.

I can highly recommend the fitting of the Glove washer to reduce all problems from the previous style wa  
Washers.

### Regional Managers Comments:

Customer is very happy with overall results.  
This operator runs 50% Off Road.

**CUSTOMER E**

# GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	December 2003	Date Removed:

**History:**  
 Customer has accepted regular replacement of wear pads due to severe conditions encountered  
 In Northern Australia

Dish Migration has been an issue, but only if the wear pads were not maintained.

**Operators Comments:**

Too early to tell, but has got to be a major improvement

Drivers have commented on improved handling characteristics on multi trailer road trains

**Regional Managers Comments:**

Product improvement to reduce maintenance has got to be a priority to retain major fleet customer.

## GLOVE WASHER QUESTIONNAIRE

Company Name	[REDACTED]		Date:	[REDACTED]
Address:	[REDACTED]			
Contact:	[REDACTED]	Phone:	[REDACTED]	
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]	
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]	
Serial No:	[REDACTED]			
Glove Washers	Date Fitted:	July 2002	Date Removed:	Still in Service

### History:

These are specialty trailers used to pick up 20 Ton bales of cotton from the field and transport them to the Gin for processing. During the season they operate around the clock for approx. 3 months at a time. These trailers are always turning on tight pads at each end of the trip. Previously the trailers had to be taken out of service to change the wear pads at least once during the season - with the resultant down time.

### Operators Comments:

These are high capital value (\$350,000) units that must be utilised to maximum capacity during the Season. The units have a 1 hour maintenance period between shifts and premature failure of the washers could not be accommodated for - this meant the units wear kept working with resultant [REDACTED] Hanger wear - we have tried some fixes of our own with not a lot of success. When these become available we are too willing to try them - they have been a great success and we are into our 3<sup>rd</sup> season with not a failure. To say we are happy would be an understatement. We were almost ready to pull the [REDACTED] out. We have changed our whole fleet to these, including our Road Train Tippers and specified it on our new Tipper trailers.

### Regional Managers Comments:

The owners comments show how please they are with this improvement. Here was a customer who was about to cut the [REDACTED] off and now is spec'ing it on new trailers.

**CUSTOMER G**

**GLOVE WASHER QUESTIONNAIRE**

Company Name	[REDACTED]	Date:	[REDACTED]
Address:	[REDACTED]		
Contact:	[REDACTED]	Phone:	[REDACTED]
Trailer Builder:	[REDACTED]	Suspension:	[REDACTED]
Configuration:	[REDACTED]	Trailer D.I.S	[REDACTED]
Serial No:	[REDACTED]		
Glove Washers	Date Fitted:	July 2002	Date Removed:

**History:**  
 This customer has had a long history of [REDACTED] Bush Migration on trailers Tippers and Dollies  
 In mining and Off Road applications on Road Trains.  
 They have tried many "Fixes" including making their own "Bush".  
 Wear pads normally last 3 months and bush migration starts soon after.

**Operators Comments:**  
 Dolly has been operating non stop in [REDACTED] Mining operation [REDACTED] and the Site Maintenance  
 Manager is "very Happy" with the Dolly.  
 Can't get it back to the workshop to remove the Glove Washers as nothing has gone wrong and do not  
 Want to take it out of service.

**Regional Managers Comments:**  
 This fleet has gone to other suspension suppliers for all their gear since 2001, mainly due to the Bush  
 Migration issue.  
 The fact that the Glove Washers are working is a good start to winning back their business.



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